

## REMARKS

This Paper is submitted in response to the final Office Action dated November 27, 2006 having a shortened statutory response period ending on February 27, 2007. This Paper is submitted within two months of the Office Action mail date, namely January 27, 2007. The Commissioner is hereby authorized to charge any additional fees to Deposit Account number 02-1818.

Claims 1, 3, 5, 21-23, 25-28, 30, 37-39, 41-42, 44-47, 49-51, 57-58 and 77-80 are pending in this application. Claims 2, 10-20, 35, 48, 56 and 59-76 have been canceled. Claims 4, 6-9, 24, 29, 31-34, 36, 40, 43, and 52-55 have been withdrawn and may be rejoined upon allowance of a generic claim. Applicants respectfully request that this Paper be entered as it 1) places the claims in a condition for allowance, and 2) requires only a cursory review by the Examiner.

Claims 1, 3, 5, and 77-80 were rejected under 35 U.S.C. §112 1<sup>st</sup> paragraph as the claim term “interface area comprising a bond area and a non-bond area” was alleged to be not supported by the specification. The term “interface area” has been clarified in these claims. Claim 77 was rejected under 35 U.S.C. §112 1<sup>st</sup> paragraph as the term “to maintain a desired functional geometry of the bond area” was alleged to be not supported by the specification. Claim 77 has been amended to more clearly articulate the claimed subject matter. Applicants respectfully submit that these amendments neither narrow the scope of nor introduce new matter to these claims. In view of the foregoing, Applicants respectfully submit that the §112 rejections be withdrawn.

Claims 1, 3, 5, and 78 were rejected under 35 U.S.C. §102(b) for allegedly be anticipated by U.S. Patent No. 5,549,552 to Peters et al. (*Peters*). Claims 77, 79, and 80 were rejected under 35 U.S.C. §103(a) for allegedly being obvious in view of *Peters*. Claims 3, 21, 25-28, 30, 35, 37, 38, 41, 42, 44-47, 49-51, and 56-58 were rejected under 35 U.S.C. §103(a) for allegedly being obvious over *Peters* in view of *Holman*. Claims 21-23 and 39 were rejected under 35 U.S.C. §103(a) for allegedly being obvious over *Holman* in view of U.S. Patent No. 4,340,097 to Ammann et al. (*Ammann*). Applicants respectfully traverse and disagree with these rejections for the reasons set forth below.

*Peters*, *Holman*, and *Ammann*, either alone or in combination, fail to disclose or suggest a method for assembling a medical device that includes fitting a heat shield over an interface area which forms a bond area, the heat shield permitting transmission of infrared energy to form a

bond between two polymeric articles at the bond area as recited in the present claims. *Peters* discloses a method for manufacturing a balloon catheter by bonding an inflatable balloon onto an inner tube. The *Peters* method includes placing a heat shrink tube over a waist portion 39 of the balloon, the balloon waist portion 39 positioned over an inner tube 34. *Peters*, col. 8 lines 13-44. This “shrink tube-balloon waist-inner tube” arrangement is then exposed to heat. The heat causes the shrink tube to compress radially inward (*i.e.*, shrink) bonding the balloon waist to the inner tube. *Peters*, col. 8 lines 40-50.

*Peters* further discloses that a heat shield is placed over the balloon portion that is not being bonded to the inner tube. The heat shield is used to prevent the heat from bonding the balloon to the inner tube during the heating of the “shrink tube-balloon waist- inner tube” arrangement. In fact, *Peters* states the following.

Prior to exposing the heat shrinkable tube and the bonding regions to heat from the heat source, a heat shield may be placed **on the balloon** such that **only** the bonding regions and the heat shrinkable tube are exposed to the heat.

*Peters*, col. 2 lines 64-67 (emphasis added). Thus, *Peters* states that the heat shield covers the balloon, exposing only the bonding region, *i.e.*, the “shrink tube-balloon waist-inner tube” arrangement, to heat. *Peters* reiterates that the heat shield covers only the balloon, exposing the “shrink tube-balloon waist-inner tube” arrangement to heat with the following disclosure.

With the heat shrink tube 48a or 48b positioned over the distal balloon waist 39 and an appropriate heat shield positioned proximal therefrom, heat is applied to thermally bond the distal balloon waist 39 to the distal inner tube 34.

*Peters*, col. 8 lines 44-47. Thus, the skilled artisan reading *Peters* would readily recognize that the only portion of the balloon exposed to heat is the balloon waist as 1) the heat shield covers and shields the balloon 37 and 2) the “shrink tube-balloon waist-inner tube” arrangement is exposed to heat and is not covered by the heat shield. In fact, the Examiner has admitted that *Peters*’ heat shield does not cover the “shrink tube-balloon waist-inner tube” arrangement. *See* Office Action dated November 27, 2006 at page 8 (“*Peters* et al. discloses a heat shield over the non-bond area of the interface....”). *Peters* has no disclosure or suggestion that the heat shield is fitted over the shrink tube. Therefore, *Peters* fails to disclose or suggest “fitting a heat shield over the interface area” as recited in the present claims.

One of ordinary skill in the art would further recognize that *Peters*' heat shield is not placed over the "shrink tube-balloon waist-inner tube" arrangement. Upon exposure to heat, the heat shrink tube of *Peters* compresses radially inward (*i.e.*, shrinks) to seal the balloon waist to the inner tube. *Peters*, col. 8 lines 44-57. Placing a heat shield over the shrink tube would 1) prevent heat from reaching the "shrink tube-balloon waist-inner tube arrangement" or 2) run the risk that the shrink tube may bond to the heat shield when the shrink tube is heated. In either case, placement of the heat shield over the "shrink tube-balloon waist-inner tube arrangement" would run contrary to the intended purpose of *Peters*—namely, to shrink, compress, and adhere the shrink tube onto the balloon waist and onto the inner tube. Thus, *Peters* fails to disclose or suggest fitting a heat shield over the interface area as recited in the present claims.

*Holman* and *Ammann* fail to fulfill the deficiencies of *Peters* as *Holman* and *Ammann* have no disclosure whatsoever directed to a heat shield. A reference cannot disclose or suggest that which it does not have. In this case, *Holman*, and *Amman* are wholly silent with respect to a heat shield and thereby cannot disclose or suggest fitting a heat shield over an interface area as recited in the present claims. Therefore, no combination of *Peters*, *Holman*, and *Ammann* discloses or suggests the claimed subject matter.

Regarding claims 25 and 44, Applicants respectfully traverse and oppose the Examiner's attempt to presume that printing an infrared absorbing pigment onto a polymeric article is common knowledge. Indeed, the MPEP is clear that official notice without documentary evidence is permissible only in limited and rare circumstances. *See* MPEP §2144.03. Although it may be arguable that printing on a polymeric material may be commonly known, the Examiner has proffered no evidence whatsoever that printing an infrared absorbing pigment on a polymeric article is commonly known in the art. In view of the foregoing, Applicants respectfully traverse the Examiner's attempt take official notice with respect to the application of the infrared pigment onto the polymeric articles as recited in claims 25 and 44.

Applicants steadfastly traverse the species rejection. Applicants have clearly articulated how the dependent claims are not mutually exclusive as the pending claims are connected in design, operation, and effect. *See* Supplemental Response to Restriction Requirement dated March 21, 2006. The MPEP is clear that species under a claimed genus which are connected in design, operation, and effect are related and not mutually exclusive. MPEP §806.04(b). Applicants further clarified that since the pending claims are method claims, the practice of any claim does not mutually exclude the practice of any other claim in elected Group I. *See*

Supplemental Response to Restriction Requirement dated March 21, 2006. Applicants therefore respectfully submit that it is the Examiner's obligation to show how the alleged species are mutually exclusive. Lacking such a showing, Applicants respectfully submit the species rejection is improper.

In the spirit of cooperation and in an effort to advance prosecution of this application, Applicants have withdrawn claims 4, 6, 7-10, 14, 16-20, 24, 29, 31-34, 36, 40, 43, and 52-55, with the understanding that these claims may be rejoined into this application upon the allowance of a generic claim.

For the foregoing reasons, Applicants respectfully request reconsideration of their patent application and earnestly request an early allowance of same.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY



Ted J. Barthel

Reg. No. 48,769

Customer No. 29200

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